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ABSTRACT OF THE DISCLOSURE

By the utilization of a jet ejector (such as a thermocompressor) in a cellulose chemical pulp mill, it is possible to effectively increase the utilization of steam. The volume of steam from a flash tank which flashes black liquor from a pulp digester may be increased (e.g. at least about 10%), while the volume and temperature of the liquor discharged from the flash tank are decreased and its concentration increased, by operatively connecting the jet ejector to the steam discharge from a flash tank. The jet ejector is supplied with higher pressure steam from another source which can result in a low pressure or partial vacuum condition in the flash tank. The flash tank may be a single flash tank or one of a series of flash tanks, and an ejector can be associated with at least another flash tank in the series. The hot spent cooking liquor from the digester can be cooled in a heat exchanger (for example in indirect heat exchange relationship with a fresh cooking liquor) prior to introduction in to the flash tank or series of flash tanks. Alternatively a jet ejector may be used to increase the pressure of a low pressure steam flow in a pulp mill to make it suitable for alternative uses.

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